

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

APPLICATION NO.: 10/616,409

ATTY. DOCKET NO.: 10248.70024US00

FILING DATE: July 9, 2003

CONFIRMATION NO.: 9289

APPLICANT: Adams et al.

GROUP ART UNIT: 1642

EXAMINER: Brandon J. Fetterolf

Sheet 1 of 6

U.S. PATENT DOCUMENTS

Examiner's Initials #	No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication or Issue of Cited Document MM-DD-YYYY
		Number	Kind Code		
/BF/		4,318,904		Shaw et al.	03-09-1982
		4,652,552		Kettner et al.	03-24-1987
		4,963,655		Kinder et al.	10-16-1990
		5,093,477		Mölling et al.	03-03-1992
		5,187,157		Kettner et al.	02-16-1993
		5,242,904		Kettner et al.	09-07-1993
		5,250,720		Kettner et al.	10-05-1993
		5,624,894		Bodor	04-29-1997
		5,939,560		Jenkins et al.	08-17-1999
		6,201,132	B1	Jenkins et al.	03-13-2001
		6,265,551		Duke-Cohan et al.	07-24-2001
		6,303,661	B1	Demuth et al.	10-16-2001
		6,500,804		Demuth et al.	12-31-2002
		6,548,481	B1	Demuth et al.	04-15-2003
		6,803,357	B1	Bachovchin et al.	10-12-2004
		6,844,180		Oi et al.	01-18-2005
		6,881,564		Abbott et al.	04-19-2005
		6,890,904	B1	Wallner et al.	05-10-2005
		6,890,905	B2	Demuth et al.	05-10-2005
		6,946,480		Demuth et al.	09-20-2005
		6,949,514		Wallner et al.	09-27-2005
		6,979,697		Wallner	12-27-2005
		7,067,489	B2	Wallner et al.	06-27-2006
		2002-0006899	A1	Pospisilik et al.	01-17-2002
		2002-0198242	A1	Demuth et al.	12-26-2002
		2003-0008905	A1	Demuth et al.	01-09-2003
		2003-0119736	A1	Demuth et al.	06-26-2003
		2003-0119750	A1	Demuth et al.	06-26-2003
		2003-0134802	A1	Demuth et al.	07-17-2003
		2003-0135023	A1	Demuth et al.	07-17-2003
		2003-0148961	A1	Heiser et al.	08-07-2003
		2003-0153509	A1	Bachovchin et al.	08-14-2003
/BF/		2003-0162820	A1	Demuth et al.	08-28-2003

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Sheet 2 of 6

/BF/	2003-0176357	A1	Pospisilik et al.	09-18-2003
	2003-0220267	A1	Matteson et al.	11-27-2003
	2004-0053369	A1	Abbott et al.	03-18-2004
	2004-0077601	A1	Adams et al.	04-22-2004
	2004-0167191	A1	Demuth et al.	08-26-2004
	2004-0176307	A1	Bachovchin et al.	09-09-2004
	2004-0229820	A1	Bachovchin et al.	11-18-2004
	2004-0229848	A1	Demuth et al.	11-18-2004
	2005-0008644	A1	Huber et al.	01-13-2005
	2005-0043299	A1	Evans et al.	02-24-2005
	2005-0084490	A1	Adams et al.	04-21-2005
	2005-0171025	A1	Von Hoersten et al.	08-04-2005
	2005-0202027	A1	Bachovchin	09-15-2005
	2005-0203027	A1	Bachovchin et al.	09-15-2005
	2005-0209249	A1	Akritopoulou-Zanze et al.	09-22-2005
	2005-0215603	A1	Akritopoulou-Zanze et al.	09-29-2005
	2005-0215784	A1	Madar et al.	09-29-2005
	2005-0272703	A1	Wallner et al.	12-08-2005
	2006-0052310	A1	Wallner et al.	03-09-2006
	2006-0063719	A1	Jesson et al.	03-23-2006
/BF/	2006-0094693	A1	Aziz et al.	05-04-2006

FOREIGN PATENT DOCUMENTS

Examiner's Initials #	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Translation (Y/N)
		Office/ Country	Number	Kind Code			
/BF/		AU	729369		Ludwig Institute for Cancer Research	02-01-2001	
/BF/		DD	158 109		Martin-Luther-Universitaet Halle Wittenberg	12-29-1982	Abstract
/BF/		DD	296075	A5	Martin-Luther-Universitaet Halle Wittenberg	11-21-1991	Abstract
/BF/		EP	0 471 651	A2	Sandoz Ltd.	02-19-1992	Abstract
/BF/		NZ	335543		Ludwig Institute for Cancer Research	03-30-2001	
/BF/		WO	95/12618	A1	Eurogenetics N.V.	05-11-1995	
/BF/		WO	95/29233	A1	Ludwig Institute for Cancer Research	11-02-1995	
/BF/		WO	95/29691	A1	Georgia Tech Research Corporation	11-09-1995	

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Sheet 3 of 6

/BF/	WO	95/34538	A2	Univeristaire Instelling Antwerpen	12-21-1995	
/BF/	WO	97/34927	A1	Ludwig Institute for Cancer Research	09-25-1997	
/BF/	WO	98/25644	A1	1149336 Ontario Inc.	06-18-1998	
/BF/	WO	99/47152	A2	Sloan Kettering Institute for Cancer Research	09-23-1999	
/BF/	WO	01/79473	A2	Millennium Pharmaceuticals, Inc.	10-25-2001	
/BF/	WO	01/98468	A2	Incyte Genomics, Inc.	12-27-2001	
/BF/	WO	02/31134	A2	Ferring BV	04-18-2002	
/BF/	WO	02/051992	A2	Millennium Pharmaceuticals, Inc.	07-04-2002	
/BF/	WO	03/092605	A2	Trustees of Tufts College	11-13-2003	
/BF/	WO	2005/071073	A1	Point Therapeutics, Inc.	08-04-2005	

OTHER ART — NON PATENT LITERATURE DOCUMENTS

Examiner's Initials #	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)
/BF/		ABBOTT et al., Two highly conserved glutamic acid residues in the predicted beta propeller domain of dipeptidyl peptidase IV are required for its enzyme activity. FEBS Lett. 1999 Sep 24;458(3):278-84.	
/BF/		ABBOTT et al., Cloning, expression and chromosomal localization of a novel human dipeptidyl peptidase (DPP) IV homolog, DPP8. Eur J Biochem. 2000 Oct;267(20):6140-50.	
/BF/		ADAMS et al., "Enhanced Anti-Tumor Activity of Dipeptidyl Peptidase Inhibitor PT-100 in Combination with Chemotherapy in Mice," American Association of Cancer Research (AACR) Annual Meeting, Orlando, Florida, March 27-31, 2004, Poster 3820. Re-submission.	
/BF/		ANSORGE et al., CD26/dipeptidyl peptidase IV in lymphocyte growth regulation. Adv Exp Med Biol. 1997;421:127-40. Abstract Only.	
/BF/		ARIGA et al., Stromal expression of fibroblast activation protein/seprase, a cell membrane serine proteinase and gelatinase, is associated with longer survival in patients with invasive ductal carcinoma of breast. Int J Cancer. 2001 Jan 20;95(1):67-72.	
/BF/		AYTAC et al., Expression of CD26 and its associated dipeptidyl peptidase IV enzyme activity enhances sensitivity to doxorubicin-induced cell cycle arrest at the G(2)/M checkpoint. Cancer Res. 2001 Oct 1;61(19):7204-10.	
/BF/		BENSAADI et al., Modulation of enzymatic activities during spontaneous and induced differentiation in a human pancreatic adenocarcinoma cell line CAPAN-1. Int J Pancreatol. 1989 May;4(4):391-406. Abstract Only.	
/BF/		BRISTOL et al., Thymocyte costimulating antigen is CD26 (dipeptidyl-peptidase IV). Costimulation of granulocyte, macrophage, and T lineage cell proliferation via CD26. J Immunol. 1992 Jul 15;149(2):367-72.	
/BF/		BRISTOL et al., Inhibition of CD26 enzyme activity with pro-boropro stimulates rat granulocyte/macrophage colony formation and thymocyte proliferation in vitro. Blood. 1995 Jun 15;85(12):3602-9.	

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/Brandon Fetterolf/

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EXAMINER: Brandon J. Fetterolf

Sheet 4 of 6

/BF/	BUSEK et al., Dipeptidyl peptidase IV activity and/or structure homologues (DASH) and their substrates in cancer. <i>Int J Biochem Cell Biol.</i> 2004 Mar;36(3):408-21.
/BF/	CHEN et al., Dipeptidyl peptidase IV gene family. The DPIV family. <i>Adv Exp Med Biol.</i> 2003;524:79-86.
/BF/	CHENG et al., Promotion of tumor growth by murine fibroblast activation protein, a serine protease, in an animal model. <i>Cancer Res.</i> 2002 Aug 15;62(16):4767-72.
/BF/	COUTTS et al., Two efficient methods for the cleavage of pinanediol boronate esters yielding the free boronic acids. <i>Tetrahedron Letts.</i> 1994;35(29):5109-12.
/BF/	COUTTS et al., Structure-activity relationships of boronic acid inhibitors of dipeptidyl peptidase IV. 1. Variation of the P2 position of Xaa-boroPro dipeptides. <i>J Med Chem.</i> 1996 May 10;39(10):2087-94.
/BF/	CUNNINGHAM et al., "Phase 2 Trial of Talabostat and Docetaxel in Patients with Stage IIIB/IV NSCLC," American Society of Clinical Oncology (ASCO) Annual Meeting, Orlando, Florida, May 17, 2005, Poster 7120. Re-submission.
/BF/	FLEISHER et al., Triggering of cytotoxic T lymphocytes and NK cells via the Tp103 pathway is dependent on the expression of the T cell receptor/CD3 complex. <i>J Immunol.</i> 1988 Aug 15;141(4):1103-7. Abstract Only.
/BF/	FLENTKE et al., Inhibition of dipeptidyl aminopeptidase IV (DP-IV) by Xaa-boroPro dipeptides and use of these inhibitors to examine the role of DP-IV in T-cell function. <i>Proc Natl Acad Sci U S A.</i> 1991 Feb 15;88(4):1556-9.
/BF/	GARIN-CHESA et al., Cell surface glycoprotein of reactive stromal fibroblasts as a potential antibody target in human epithelial cancers. <i>Proc Natl Acad Sci U S A.</i> 1990 Sep;87(18):7235-9.
/BF/	GIBSON et al., A practical synthesis of L-Valyl-pyrrolidine-(2R)-boronic acid: Efficient recycling of the costly chiral auxiliary (+)-Pinanediol. <i>Org Proc Res & Dev.</i> 2002;6:814-16.
/BF/	GOLDSTEIN et al., Identification of an alternatively spliced seprase mRNA that encodes a novel intracellular isoform. <i>J Biol Chem.</i> 2000 Jan 28;275(4):2554-9.
/BF/	GOLDSTEIN et al., Molecular cloning of seprase: a serine integral membrane protease from human melanoma. <i>Biochim Biophys Acta.</i> 1997 Jul 10;1361(1):11-9.
/BF/	GORRELL et al., Dipeptidyl peptidase IV and related enzymes in cell biology and liver disorders. <i>Clin Sci (Lond).</i> 2005 Apr;108(4):277-92.
/BF/	GÜNTHER et al., Solution structures of the DP IV (CD26) inhibitor Val-BoroPro determined by NMR spectroscopy. <i>Magn Reson Chem.</i> 1995;33:959-70.
/BF/	GUTHEIL et al., Separation of L-Pro-DL-boroPro into its component diastereomers and kinetic analysis of their inhibition of dipeptidyl peptidase IV. A new method for the analysis of slow, tight-binding inhibition. <i>Biochemistry.</i> 1993 Aug 31;32(34):8723-31.
/BF/	HEGEN et al., Function of dipeptidyl peptidase IV (CD26, Tp103) in transfected human T cells. <i>Cell Immunol.</i> 1993 Feb;146(2):249-60. Abstract Only.
/BF/	HEGEN et al., Enzymatic activity of CD26 (dipeptidylpeptidase IV) is not required for its signalling function in T cells. <i>Immunobiology.</i> 1993 Dec;189(5):483-93. Abstract Only.
/BF/	HEINS et al., Mechanism of proline-specific proteinases: (I) Substrate specificity of dipeptidyl peptidase IV from pig kidney and proline-specific endopeptidase from <i>Flavobacterium meningosepticum</i> . <i>Biochim Biophys Acta.</i> 1988 May 18;954(2):161-9. Abstract Only.

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/Brandon Fetterolf/

DATE CONSIDERED:

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FORM PTO-1449/A and B (modified PTO/SB/08) INFORMATION DISCLOSURE STATEMENT BY APPLICANT				APPLICATION NO.: 10/616,409		ATTY. DOCKET NO.: 10248.70024US00	
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Sheet	5	of	6				

/BF/		HILDEBRANDT et al., Dipeptidyl peptidase IV (DP IV, CD26) in patients with inflammatory bowel disease. Scand J Gastroenterol. 2001 Oct;36(10):1067-72. Abstract Only.	
/BF/		HOFFMANN et al., Dipeptidyl peptidase IV (CD 26) and aminopeptidase N (CD 13) catalyzed hydrolysis of cytokines and peptides with N-terminal cytokine sequences. FEBS Lett. 1993 Dec 20;336(1):61-4.	
/BF/		KHAN et al., "Phase 2 Study of Talabostat and Rituximab in Patients with Advanced CLL Previously Treated with Rituximab/Fludarabine." American Society of Hematology Annual Meeting. December 2005. Poster 2125.	
/BF/		LOKSHINA et al., Proteolytic enzymes in human leukemic lymphoid cells. III. Aminopeptidases, angiotensin-converting enzyme, and its inhibitor in cells of different immunological phenotype. Biochemistry (Mosc). 1999 Apr;64(4):448-55. Abstract Only.	
/BF/		MATHEW et al., The gene for fibroblast activation protein alpha (FAP), a putative cell surface-bound serine protease expressed in cancer stroma and wound healing, maps to chromosome band 2q23. Genomics. 1995 Jan 1;25(1):335-7.	
/BF/		MATTESON et al., Synthesis and properties of pinanediol .alpha.-amido boronic esters. Organometallics. 1984;3(8):1284-8.	
/BF/		MITTRUCKER et al., The cytoplasmic tail of the T cell receptor zeta chain is required for signaling via CD26. Eur J Immunol. 1995 Jan;25(1):295-7. Abstract Only.	
/BF/		MORIMOTO et al., 1F7, a novel cell surface molecule, involved in helper function of CD4 cells. J Immunol. 1989 Dec 1;143(11):3430-9. Erratum in: J Immunol 1990 Mar 1;144(5):2027.	
/BF/		MORRISON et al., A marker for neoplastic progression of human melanocytes is a cell surface ectopeptidase. J Exp Med. 1993 Apr 1;177(4):1135-43.	
/BF/		NEMUNAITIS et al., "A Phase I Trial of Talabostat (PT-100) in Patients Receiving Myelosuppressive Chemotherapy," American Society of Clinical Oncology (ASCO) Annual Meeting, New Orleans, Louisiana, June 5-8, 2004, Poster 2572. Re-submission.	
/BF/		NIEDERMEYER et al., Mouse fibroblast activation protein: molecular cloning, alternative splicing and expression in the reactive stroma of epithelial cancers. Int J Cancer. 1997 May 2;71(3):383-9.	
/BF/		NIEDERMEYER et al., Mouse fibroblast-activation protein--conserved Fap gene organization and biochemical function as a serine protease. Eur J Biochem. 1998 Jun 15;254(3):650-4.	
/BF/		NOVELLI et al., Keratinocytes express dipeptidyl-peptidase IV (CD26) in benign and malignant skin diseases. Br J Dermatol. 1996 Jun;134(6):1052-6. Abstract Only.	
/BF/		ORAVECZ et al., Regulation of the receptor specificity and function of the chemokine RANTES (regulated on activation, normal T cell expressed and secreted) by dipeptidyl peptidase IV (CD26)-mediated cleavage. J Exp Med. 1997 Dec 1;186(11):1865-72.	
/BF/		PARK et al., Fibroblast activation protein, a dual specificity serine protease expressed in reactive human tumor stromal fibroblasts. J Biol Chem. 1999 Dec 17;274(51):36505-12.	
/BF/		PETHIYAGODA et al., Dipeptidyl peptidase IV (DPPIV) inhibits cellular invasion of melanoma cells. Clin Exp Metastasis. 2000;18(5):391-400. Abstract Only.	
/BF/		PINEIRO-SANCHEZ et al., Identification of the 170-kDa melanoma membrane-bound gelatinase (seprase) as a serine integral membrane protease. J Biol Chem. 1997 Mar 21;272(12):7595-601.	
/BF/		RETTIG et al., Regulation and heteromeric structure of the fibroblast activation protein in normal and transformed cells of mesenchymal and neuroectodermal origin. Cancer Res. 1993 Jul 15;53(14):3327-35.	

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Sheet	6	of	6			

/BF/		RETTIG et al., Fibroblast activation protein: purification, epitope mapping and induction by growth factors. Int J Cancer. 1994 Aug 1;58(3):385-92.	
/BF/		RETTIG et al., Cell-surface glycoproteins of human sarcomas: differential expression in normal and malignant tissues and cultured cells. Proc Natl Acad Sci U S A. 1988 May;85(9):3110-4.	
/BF/		ROSENBLUM et al., Prolyl peptidases: a serine protease subfamily with high potential for drug discovery. Curr Opin Chem Biol. 2003 Aug;7(4):496-504.	
/BF/		SUDMEIER et al., Solution structures of active and inactive forms of the DP IV (CD26) inhibitor Pro-boroPro determined by NMR spectroscopy. Biochemistry. 1994 Oct 18;33(41):12427-38.	
/BF/		UNDERWOOD et al., Sequence, purification, and cloning of an intracellular serine protease, quiescent cell proline dipeptidase. J Biol Chem. 1999 Nov 26;274(48):34053-8.	
/BF/		WATSON et al., Continuous proliferation of murine antigen-specific helper T lymphocytes in culture. J Exp Med. 1979 Dec 1;150(6):1510-9. Abstract Only.	

*a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. __, filed __, and relied upon for an earlier filing date under 35 U.S.C. 120 (continuation, continuation-in-part, and divisional applications).

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